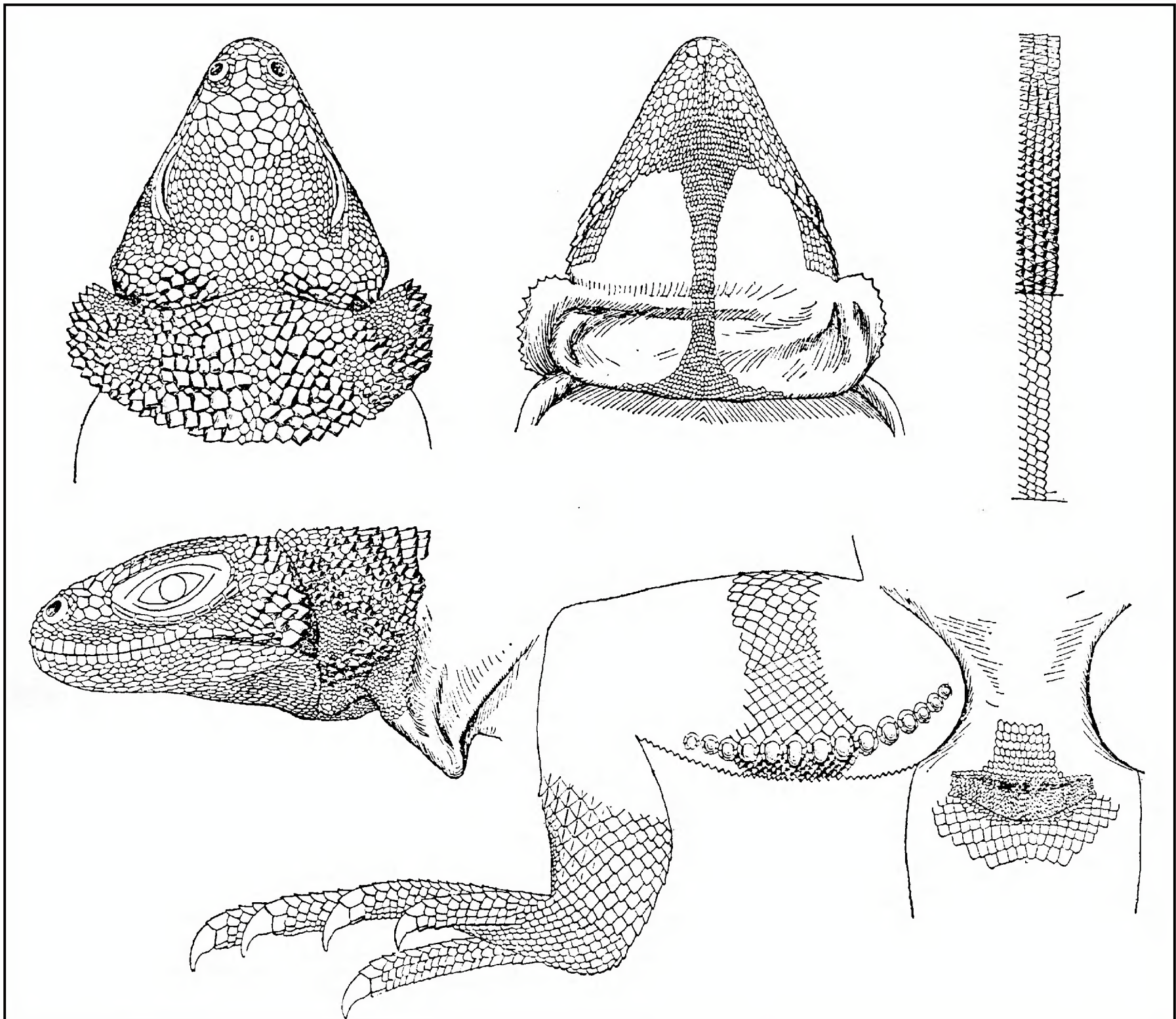

BULLETIN

of the

Chicago Herpetological Society



Volume 31, Number 1
January 1996



BULLETIN OF THE CHICAGO HERPETOLOGICAL SOCIETY

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Membership in the CHS includes a subscription to the monthly *Bulletin*. Annual dues are: Individual Membership, \$22.00; Family Membership, \$25.00; Sustaining Membership, \$50.00; Contributing Membership, \$100.00; Institutional Membership, \$38.00. Remittance must be made in U.S. funds. Subscribers outside the U.S. must add \$12.00 for postage. Send membership dues or address changes to: Chicago Herpetological Society, Membership Secretary, 2060 N. Clark Street, Chicago, IL 60614. Publications are sent to U.S. members via third class bulk mail; the post office does not forward such mail, even if a special request is made to forward magazines.

Manuscripts should be submitted in duplicate, typewritten and double spaced. Alternatively, submission of manuscripts in the form of IBM PC-compatible or Macintosh format diskettes is encouraged. Manuscripts and letters concerning editorial business should be sent to: Chicago Herpetological Society, Publications Secretary, 2060 N. Clark Street, Chicago, IL 60614.

Back issues are limited but are available from the Publications Secretary for \$2.50 per issue postpaid.

The BULLETIN of the Chicago Herpetological Society (ISSN 0009-3564) is published monthly by the Chicago Herpetological Society. Copyright © 1996.

**Book Review: *Reptiles of North Carolina* by William M. Palmer and Alvin L. Braswell
1995. xiii + 412 pp. The University of North Carolina Press. Chapel Hill, NC.
\$49.95 Hardcover [Available from CHS Book Service - Member's Price \$44.95]**

**Joseph C. Mitchell
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Those of us who have known of the authors' long-term project on the reptiles of North Carolina have anxiously awaited the publication of this book. The outcome is certainly worthwhile, and indeed the book is a major contribution to our knowledge of reptilian natural history in eastern North America. That the contents will serve as a baseline for future studies of these animals in North Carolina is an understatement. The book is appropriately dedicated to the late C. S. Brimley and J. R. Bailey whose own contributions to the herpetology of North Carolina provided the initial foundation.

The authors note in the Preface that the book was written primarily for the herpetologist, professional biologist, and serious student, but with resource managers, environmental consultants, and hobbyists in mind. The attention given to such details as sexual, ontogenetic, and geographic variation in scale characters, distribution records, and taxonomy, and the diet and reproductive information packed in the 170 tables make this a true statement. Serious hobbyists will find much of interest, but amateurs may be overwhelmed with the technical stuff.

There is no introduction, per se, because the introductory section (Part 1) begins with a description of the state's "Physiographic Provinces and Reptile Distributions." The Preface will have to suffice for the introduction. Other sections in Part 1 are "History," a short "Materials and Methods," "Species of Concern," "Conservation Ethics," "Species and Subspecies of Uncertain Occurrence," "A Note on Subspecies," "Checklist of the Reptiles of North Carolina," "Organization of Species Accounts," and a key to orders and suborders.

The descriptions of North Carolina's reptilian fauna are divided into four sections: turtles (21 species), lizards (12 species), snakes (37 species), and crocodilians (1 species). The introduction to each section contains an overview of the group, descriptions of group-specific measurements and methodologies, and an illustrated key to species. The keys are profusely illustrated, ensuring their usefulness to those who need to accurately identify a species in hand. The 71 species accounts and 167 of the 170 tables of supporting data constitute 84% of the book's pages. Each species account contains several sections: Definition (in abbreviated sentence format); Variation (sexual, ontogenetic, geographic); Distribution; Habitat and Habits; and Remarks. The Habitat and Habits sections consistently include information on habitat affinities, behavior, seasonal occurrence, prey, predators, and various aspects of reproduction. Each distribution section contains a list of all unvouchered records (i.e., those based on literature accounts or personal observations). Distribution maps with open (unvouchered) and closed (museum record) circles indi-

cate population locations and provide much more information than maps in those state herp books that show only a single county record. Only the sea turtles lack such maps. All of the data summarized in the species accounts are from North Carolina populations. Data from other parts of a species' range are included only when none are available from North Carolina.

The illustrations help make this publication one of the most useful state-level reptile books. A color photograph of an adult of each species is included in the 16-page color signature. Plate 39 illustrates in the same frame the black rat and yellow rat subspecies of *Elaphe obsoleta*, and Plate 42 shows the patterned and melanistic phases of *Heterodon platirhinos*. The rest are portraits of single adult specimens. All but five individuals illustrated are from North Carolina. Note the symmetry in the layout. In addition to the color plates, a high quality, stippled, black-and-white drawing by Renaldo Kuhler accompanies each species account. These illustrations provide dorsal, and sometimes ventral, views of all the turtles and lizards. Two sections of each snake are illustrated: head and neck, and midbody. These add substantially to a reader's ability to identify these animals. The illustrations for several of the lizards fill an entire page; they are much larger than the lizards themselves. Several turtles are also illustrated in full-page format, but they do not seem oversized. Most of the rest are well proportioned.

The end matter contains information about herpetological societies; a glossary of 83 terms not defined in the text or captions; literature cited; and an index to reptile names. The latter would have been far more useful had it included names of all the species mentioned in the text, including scientific and common names of all predators and prey. Searching for the species that prey upon a particular frog, salamander, or invertebrate requires reading the appropriate section in all of the accounts. A more inclusive index would have been a substantial contribution to this book.

The book itself is well bound and will presumably stand up to moderate use. The 8½ × 11 format will not allow one to carry it in his or her back pocket or day pack. This is not a field guide, so view this book as a working reference for your home, office or lab. You may want to carry one in your car or just photocopy the maps to have them handy as a field reference. There is no dust jacket, and the background color of the book, blue-green, will make it stand out on your shelf.

I was disappointed with the history section. It starts with brief descriptions of the oldest literature containing herpetological observations, those of James Harriot in the late 1500s. From there it simply lists, with a few exceptions, a progression of observations and records derived from a chronological

arrangement of the literature through 1993. I would have been far more interested in reading this section if it described, for instance, how Brimley conducted his fieldwork in the early 1900s, how his observations set the stage for future work, and how the establishment of the North Carolina State Museum of Natural Sciences contributed to the development of herpetology in that state. Thus, the definitive history of North Carolina herpetology has yet to be written.

The Conservation Ethics section (pp. 13-14) fares better and I hope that all readers of this book will take its message to heart. Pay particular attention to the value of providing voucher specimens in appropriate situations and the problems with releasing captive reptiles into native populations. The authors obviously maintain a population perspective in their conservation ethics.

Most of the data provided are for characters that are used commonly in the scientific literature. The primary exception is the inclusion of carapace width measurements along with carapace length (CL) in all the turtle species accounts and in the accompanying tables. Where is plastron length (PL), the most commonly used linear measurement in chelonian biology? One can obtain a general plastron length from the ratio of PL to CL in the table for the appropriate species, but that will not be as accurate as means and ranges of actual plastron lengths. Turtle biologists will find this to be a serious omission.

I am very concerned about the detailed distribution map for *Clemmys muhlenbergii*. The locality dots are apparently plotted precisely in the areas where populations were known to exist. In addition, the text contains a detailed listing of all unvouchered locations. Unscrupulous collectors might be able to locate populations with this information and contribute to the decline

of this species. I would have preferred to see plots of less precise locations to minimize these problems. My concerns as a conservation biologist also extend to the state-endangered *Crotalus adamanteus* and other state-protected species.

Subspecies are treated in separate accounts in this book, each with its own description and summaries of variation, distribution, and ecology. In my experience, many people, including some biologists not well trained in systematics, essentially treat subspecies as species. To their credit, Palmer and Braswell cross-reference the accounts belonging to the same species and show intergrade zones on the distribution maps, but unfortunately separation makes it easy for untrained readers to think about subspecies as separate entities. The herpetological community would have been better served if the accounts focused solely on the species level and included information about subspecific variation within the text.

Aside from these criticisms, the book is well written with essentially no misspellings and egregious errors. It was obviously well-edited, and it is a gold mine of information. The text is sometimes laborious reading because there *is* so much and because the same kinds of information are provided for each species. The book will most benefit professional herpetologists and serious hobbyists seeking comparative natural history data because much of it is here in its raw form, particularly in the tables. Managers and consultants who must identify and work with these animals will also benefit greatly, especially from the keys, associated illustrations, and the ecological descriptions. Everyone with a serious interest in North American herpetology should purchase a copy.

Joseph C. Mitchell is the author of The Reptiles of Virginia.

Bull. Chicago Herp. Soc. 31(1):2-3, 1996

An Unorthodox Solution to Accidental Entrapment of *Elaphe g. guttata* in an Adhesive Mousetrap

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When working with our collection of reptiles, strict guidelines are followed to the letter when dealing with venomous specimens. Unfortunately, these recommended practices are sometimes relaxed when working members of the family Colubridae.

In August 1995, two corn snakes, *Elaphe g. guttata*, escaped from a temporary holding enclosure as their cages were being cleaned. The snakes remained loose in the house for several weeks before being recaptured.

The first snake to reappear was an amelanistic juvenile approximately 25 cm long. The snake was discovered in the same room in which it had escaped, caught in a "Victor Mouse Glue Trap." The trap consists of a tray containing an adhesive which serves to restrain small rodents in a manner similar to flypaper. Once caught in the trap, a small animal is unable to

free itself and will frequently suffocate as attempts to chew or gnaw at the adhesive.

The superior third of the snake's ventral surface, including lower jaw, was bound to the adhesive on the trap. The snake appeared to be in good health despite a contorted appearance to the mouth caused by struggling.

Manufacturer's directions, as printed on the trap, recommended the use of mineral spirits to dissolve the adhesive compound. Having none, I attempted to use soap and water with no success.

Becoming increasingly concerned about the prolonged stress to the snake, I resorted to trying a citrus room freshener. The deodorizing spray, sold commercially as Citrus Magic, has a 100% citrus oil base and is also recommended as a

general cleaner. I had previously used this product to remove adhesive residue from tape and price tags with great success.

The printed precautions on the bottle warn: “. . . If sprayed on sensitive skin or in eyes flush thoroughly with water at least 10 minutes. If needed, petroleum jelly (Vaseline) will help stop sensitive skin from burning. This product will react the same as if sprayed lemon juice in your eyes.”

Observing these precautions, I prepared the snake by rubbing the exposed surface of the animal with a thin coating of petroleum jelly. A heavier coat of jelly was applied to the cloaca. Each eye was treated with a drop of olive oil.

Immediately upon spraying the snake with the citrus oil at the point of adhesion, contact with the trap was broken. A subsequent thorough washing with soap and warm water removed the bulk of the citrus oil and petroleum jelly. The

remaining hint of jelly proved to be of no significance.

Close observation of the snake for the next 24 hours indicated no visible signs of distress or abnormal behavior in respiration or neurological function.

Thirteen days after this incident, the snake underwent a normal shed. To this day, there appears to be no residual side effects from the chemical trap or subsequent treatment.

Notes on Products Mentioned in the Text

Citrus Magic is a product of Beaumont Products of Marietta, Georgia 30066.

Victor Mouse Glue Trap is made by Woodstream of Lititz, Pennsylvania 17543.

Bull. Chicago Herp. Soc. 31(1):3, 1996

A Beginning Snake Care Guide for Free Distribution

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When I began keeping reptiles (especially snakes) in the 1960s, very little care information was available. Many of my pets died as a result of poor husbandry. Fortunately, the situation for beginning herpetoculturists is much different today. There is still much to learn, but the basic care requirements of commonly kept reptiles are much better understood, and this information is available in many excellent publications. There is no need for beginners to make the same mistakes I made thirty years ago.

But sadly, the same mistakes continue to be made. How many times in the last year or two have you heard about a beginner's herp that became seriously ill because of poor basic husbandry? The herp veterinarians among us see this constantly. Perhaps because I am a teacher as well as a snake breeder, this situation bothers me a lot. I wonder how many of my beginning customers in past years sought out and bought the literature they needed? I commonly meet people who already own a snake but lack basic care information.

Of course, there is excellent literature available commercially. Ideally, I would simply give a copy of the appropriate starter book to each customer who needed one. Obviously this is cost prohibitive, especially in any quantity. To educate my beginning customers in an affordable way, I decided to write a simple snake care guide and give it away with the snake. The current version of this guide is reproduced below. The information in it is informally written and general in nature. (I also have a much shorter and more specific care sheet for the rosy boas I breed, but it assumes basic husbandry background on

the part of the reader. It is not enough for a beginner.) The guide is intended to be complete enough to cover the basics of snake care but brief enough to keep the cost of photocopying low. My goal is to get the novice off to a good start, and to direct him or her to books and herp organizations for more detailed information. The guide has also proven to be very helpful as a free handout for interested beginners who are not my customers. My only cost is for photocopying, and I feel this is well worth it.

I encourage others who sell herps to consider giving basic care literature out as part of the cost of the animal. A one-page summary of the special needs of a particular genus or species is a great start, and is all that experienced customers need. *The next step is to also offer a general care handout to inexperienced customers, who may not realize how much they do not know.* Your handout may save them (and your animal!) much grief, and also convince them to invest in a book or herp organization membership. What more could one ask? This is a simple way to promote the welfare of our animals, encourage those beginning in our hobby, and show ourselves responsible and professional to a sometimes skeptical public.

The beginner's snake care guide that starts on the following page is designed to be photocopied as a separate unit (i.e., without this preface). The guide may be reproduced in full or in part, for free distribution only. Please give credit on each copy to the author and the *Bulletin of the Chicago Herpetological Society*.

General Snake Care

Mark Witwer
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Introduction

Snakes are fascinating creatures! For animals put together in such an odd way, they are amazingly successful. Without hands, legs, fins, wings, moveable eyelids, external ears, or teeth that cut food into small bites, they are found on every continent except Antarctica and in almost every conceivable habitat.

There are at least two ways to study and enjoy snakes firsthand. One way is to observe them, undisturbed, in nature. This is challenging and rewarding. A second way is to keep them in captivity. There are advantages and disadvantages to both approaches. For example, you cannot assume that you are always seeing “normal” snake behavior in a cage. It is also ecologically unwise (and may be illegal) for you to capture every snake you find. On the other hand, snakes are secretive and difficult to observe closely in nature, and the close contact possible with a captive snake is deeply satisfying to many people. Fortunately, more and more snakes are being bred in captivity each year, which means that many babies are available. If you wish to keep a snake, and have access to captive-bred specimens, you need not remove one from the wild. As an added plus, captive-bred snakes are often healthier and better adjusted to captivity.

Many types of snakes are fairly easy to maintain in captivity, and may live for many years *if certain simple requirements are met*. Unfortunately, the care requirements of snakes are not general knowledge, even in many pet shops. Further, these needs are different enough from our own that we are unlikely to get it right without some information. If its basic needs are not met, a snake will almost certainly die, although it may take months to do so. This can be a frustrating and sad experience, especially if the snake is a child’s pet.

This paper is a summary of the basic care of snakes. I hope that it will help you to get off to a good start. *For more detailed information, and for specifics about the type of snake you have, you should purchase a good book on snake care as soon as possible*. Many are available in reptile-oriented pet stores. Joining local and national herpetological (i.e., amphibian and reptile) organizations is also a very good idea. Personal contact with people in your area who share your interest can be very helpful, and some of the national organizations have excellent monthly publications.

I will assume that you are fairly new to snake keeping. I will also assume that your snake is one of the more commonly kept, nonvenomous, medium sized (2–6 feet as an adult), mouse eating, terrestrial (i.e., ground-dwelling) species. This includes corn snakes and many other rat snakes, many kingsnakes and milksnakes, rosy boas, ball pythons, and some others. We will limit our discussion to snakes of this sort. Venomous snakes should not be kept by beginners, and are illegal in some places. Larger snakes (*especially* the types of

pythons and boas that exceed ten feet as adults), arboreal snakes (i.e., those spending much or all of their time in trees or bushes), and snakes with nonrodent food preferences require specialized care. These species are best left for later, when you are more experienced and have studied their needs. If you already have one of these snakes, it is vital that you get a good book and/or some expert advice as soon as possible.

Temperature

This is probably the single most important aspect of successful snake care. I suspect that most beginners’ snakes that die early do so because of temperature-related problems.

Have your hands ever been so cold that you couldn’t unbutton a coat? This lack of control is because your hands need to be at a certain temperature to work properly. Your body is usually able to keep itself very near this temperature without your thinking about it. We commonly refer to this automatic control of body temperature as being “warm blooded.” (The preferred term today is “endothermic,” signifying the production of needed body heat *inside* the body.) A snake’s body also cannot function properly unless it is at a proper temperature. If the snake is too cold, it cannot digest its food (and may regurgitate it, if it eats at all) and it cannot fight infection well (and may become ill). The key difference between a snake and a human in this is not the need to be warm, but how the warmth is brought about. A snake’s body cannot automatically maintain the proper temperature. Instead, if it needs to warm up, it moves to a warmer spot. If it needs to cool down, it moves to a cooler spot. At different times it may need to be at different temperatures (e.g., warmer when digesting a meal). We often call this being “cold blooded,” but you can see that it has nothing to do with wanting to be cold. (The preferred term is “ectothermic” — getting needed body heat from *outside* the body.)

This means that *snakes in captivity need to be able to pick their preferred body temperature*. They do this by moving about *between areas of differing warmth*. Your snake’s cage should provide a choice of areas (called a thermal gradient) that range from about 88° (Fahrenheit) to roughly ten or 15 degrees less. The easiest way to achieve this is to heat one end of the cage and not the other. Don’t let the warm end get too hot. If you cannot leave your hand on the cage floor at the warm end, it is too hot. Snakes don’t seem to be able to feel heat very well, and can get burned on such a spot. Also keep the cage out of direct sunlight; sunshine pouring in through a window can rapidly overheat a cage.

Measure the temperature as the snake experiences it: Place a thermometer flat on the cage floor inside the hide box, over the warmest spot in the cage. Leave it there for 20 minutes or so before reading it. Do the same at the cool end of the cage, so that you know the temperature range. If the snake spends

all of its time at one end or the other, this is a sign that the temperature needs to be adjusted. If the snake is always at the warm end, that end is a bit too cool. If it is always at the cool end, the warm end is too hot. Remember that it is normal for a snake to spend much of its time at the warm end for a few days after it has eaten, or when preparing to shed.

Two common methods of heating small animal cages are best avoided with snakes. The first is keeping the entire cage at a uniform temperature (say, 80°F). This is better than leaving the cage at a cooler temperature but it is still unnatural; the snake cannot “fine-tune” its own temperature. The second method to avoid is using a light bulb as the only heat source. This may not get enough heat to the snake, particularly if it is generally inside a hide box. Also, leaving a light on all day and night can be stressful to a snake. (At the very least, a red bulb should be used at night.) The best arrangement is heating from the bottom of the cage, so the snake can lie on an area of the proper temperature. Some people use bottom heat in combination with a light, for certain sun-loving reptiles. However, most snakes (especially ones active mainly at night) do not seem to need a basking light.

There are a number of good bottom heaters available for reptile cages. Avoid “hot rocks” which need to be put inside the cage. Reptiles have been burned on some of these, they must be cleaned when soiled, the snake may refuse to get on it at all, and you have to deal with an electrical cord running out of the cage top. (This can be a weak link in your cage security; see below.) Instead, buy a flat heat pad or strip made for reptile use (not a medical pad for people), which can be placed under the cage at one end. Support the cage on wooden slats, so that it is not resting directly on the heater or cord. Placing the cage directly on the heater may damage both and/or allow the cage floor to become hot enough to burn the snake. The amount of heat can be adjusted by sliding the pad more or less under the cage, raising or lowering the cage above the pad, or plugging the heat pad into a commercial rheostat (dimmer switch). Remember that the snake needs a thermal gradient; leave the pad under only one-third to one-half of the cage floor, to create a warm end.

Cage

Size

With the exception of a few very active species (e.g., racers), the snakes we are discussing do not need extremely large cages. On the other hand, a cage not much larger than the snake’s coiled body is much too small! A reasonable guideline, assuming a normal rectangular shape (e.g., an aquarium), is to have a cage large enough for *at least* half of the snake’s length to be stretched out on one long side. This means using a 15-gallon aquarium or a large sweater box (floor roughly 12" × 18") for a three-foot snake, and a larger cage for a four- or five-foot snake. If the snake is very heavy-bodied (e.g., a ball python), provide a bit more space than its length alone would indicate.

A cage that is too small can stress a snake. Stress can lead to illness and/or feeding problems. If the snake has a hide box

but still prowls constantly, it may feel cramped and be preoccupied with escape. Try a larger cage. Keep in mind that restlessness can be caused by many things, however. It is normal for some male snakes to be very active in the spring breeding season. Restlessness may also indicate illness. I once had a female corn snake which suddenly began roaming too much, so I took her to a reptile veterinarian. It turned out that she had an infection; we caught it early enough that treatment was easy.

A cage that is too large can also stress a snake. Being trapped in a large open area may make the snake feel unprotected and insecure. Try providing lots of hiding places or a smaller cage.

Security

Snakes are master escape artists! They will eventually find and squeeze through surprisingly small openings or loose cage tops. If you keep your snake in an aquarium, be sure the screen top has a rigid frame that either clips on *securely* and/or is *always* carefully weighted down. Check the lid by trying to lift each corner and the middle of both long sides, one at a time, with your thumb. If you can do it without great difficulty, the lid is not secure. I have learned this lesson the hard way; *be sure!* Two warnings about aquariums: First, don’t put weight on the screen itself. Put flat boards across both ends and perhaps also the middle of the lid, and place heavy books or bricks on the boards. Second, don’t tape the lid down. If the snake does manage to squeeze under the edge, you may have to take it to a vet to have the tape removed from its scales!

Although they are more expensive than aquariums, molded plastic snake cages with clear sliding fronts are available and are practically escape-proof. Other functional cage styles are also available; you will see ads for them in reptile magazines. The extra investment for a secure cage is well worth it. Aquariums are notorious for “losing” snakes; forgetting to put the bricks back properly *one time* is all it takes for the snake to be gone for good.

If you are handy with tools, you might want to design and build your own cage. Get advice from an experienced snake-keeper first. The design must be absolutely escape-proof, must not include toxic materials (e.g., cedar wood), and must be easy to clean.

Hide Boxes

Most snakes prefer to stay out of sight much of the time. If they cannot hide, they may become stressed and wind up ill. It is wise to provide your snake with at least one and preferably two or more hiding places. The best arrangement is to have one at each end of the cage, so that the snake can hide *and* be at its preferred temperature at any given time. I use old cereal boxes and the like. Be sure that the hiding place is safe: free of heavy fragrances or toxic residues, sharp surfaces, and adhesive that might stick to scales. The box should be snug, like a cozy crevice in which the snake might hide in nature. If it is too roomy, put some paper towels or newspaper loosely inside. Nice snake shelters may also be purchased, but they

must be kept clean. The advantage of using cardboard boxes is that soiled ones can simply be discarded.

Substrate

The least expensive and easiest material to keep clean on the floor of a snake cage is newspaper. Some textured paper cage liners are also available commercially; the rougher surface (compared to smooth newspaper) may improve snake muscle tone. Change the paper as soon as you notice that it is soiled, and also clean any cage surface that is soiled. Wood shavings (often pine, aspen or cypress) can also be used to cover the bottom of the cage. However, if the snake often gets the wood shavings in its mouth (e.g., while digging or feeding) switch to paper. Snakes cannot digest plant fiber, and you do not want a blocked digestive tract. For various reasons, it is generally best to avoid using cedar shavings (toxic to snakes), corn cob bedding, sand, gravel and soil from outdoors.

Water

Provide your snake with a bowl of clean water at all times. The bowl should be easy to clean and difficult to tip over. Sturdy plastic works well. To avoid excess humidity (and the health problems this can create for some snakes), place the water bowl at the cool end of the cage. This will reduce evaporation. The water bowl should be large enough to contain the coiled snake and should not be overfilled, since many snakes will soak now and then (especially before shedding).

Change the water once or twice each week (immediately, if it is soiled). Wash the bowl with soap and water weekly. Disinfect it if it is soiled, or periodically otherwise. One way to disinfect is to soak the bowl for 10–15 minutes in a 1:15 liquid Clorox:water solution (e.g., one small cup of liquid Clorox mixed with 15 small cups of water). Four warnings about disinfection with chlorine bleach:

- 1) Don't use it on metal. The metal may corrode.
- 2) This solution is stronger than it sounds, and can be hazardous. Read the warning label on the bleach container!
- 3) Wash off any foreign material on/in the bowl; the disinfectant needs to touch the surface of the bowl itself.
- 4) After disinfecting, rinse the bowl *thoroughly* before using it.

Other Cage Furnishings

Nothing else is *needed* in the cage. If you wish to add a climbing limb, a rock or some other such decoration, be sure it has no sharp edges. Also be careful not to position rocks or other heavy objects in such a way that the snake can dig under them, or push them over and injure itself. Remember that all cage furnishings must be kept clean and dry.

Feeding

Most commonly kept snakes feed well on rodents. Mice are easy to obtain from pet shops and private breeders, and provide a complete and appropriately sized diet for the snakes we are discussing. Mice may be purchased alive or frozen. There are several advantages of using thawed rather than live

mice. They are usually less expensive (especially if you buy in quantity), you are not dependent on a pet shop having the mice you need each week, some mouse parasites (which could infect your snake or you) are killed by prolonged freezing, and dead mice will not bite the snake. That last point is important! NEVER leave a live mouse unattended with a snake: hungry mice have eaten holes in snakes that were not, and a mouse held poorly by a snake trying to kill it can wound the snake. If you must buy live mice from a pet store, kill them humanely by cervical dislocation (i.e., a certain way of breaking the neck; an experienced animal lab technician or vet may be able to teach you) or by holding the tail and slapping the mouse *hard* against a table edge or a hard floor. (Obviously this suggests another advantage to using frozen mice: You do not have to kill the mice yourself.) If your snake will take them, feeding it thawed mice is the best way to go. You will find ads for frozen mice in reptile magazines. Be sure to thaw the mouse *completely* before offering it to the snake, but don't let it spoil. Defrosting it in the refrigerator for 12 hours or so, and then setting it out for 30 minutes to warm to room temperature works well. Before putting it in the refrigerator, seal the mouse in a clean plastic bag to protect your food from bacteria.

I offer thawed mice to my snakes using ten-inch forceps. Many snakes become very aggressive when they detect food; don't put your fingers within range! Some snakes will eat a mouse left on the cage floor; others won't grab it unless it is wiggled with the forceps. If all goes well, the snake will grab the mouse in its mouth, sometimes constrict it (i.e., coil around it and squeeze), and then slowly swallow it whole. The mouse will take a few days to digest; the time depends on its size. It is best to leave the snake alone for 24–48 hours, since handling it too soon may make it regurgitate. If your snake refuses to feed on thawed or live mice for three weeks or so, seek advice. Many books discuss feeding problems.

The appropriate size of the mouse depends on the size of the snake. A snake can generally swallow a mouse about twice as big around as its own head. Newborn mice (commonly called "pinks") are right for many baby snakes, and various sizes of adult or subadult mice are appropriate for many adult snakes. Most snakes can be fed weekly. In general, a properly sized weekly mouse should create a visible (not huge) bulge about halfway down a snake's body, where its stomach is located. This bulge will disappear as the mouse is digested.

Many snakes refuse to eat when they are getting ready to shed. I often don't offer food from the time I notice the snake's skin getting cloudy until after it sheds. (Appetite is often very good just after a shed.) Also, the snake may not eat as much or as regularly in the winter months. The cooler temperatures and shortened daylight periods may trigger an instinct to "hibernate" ("brumate" is the proper term for snakes). If it refuses food for a month or so in the winter, despite having an 88°F warm end in the cage, *and the snake is healthy*, you may want to allow it to brumate. Breeders often do this with their snakes from temperate climates, and it is discussed in many books. Do not try to brumate a tropical snake (e.g., a ball python).

Snakes respond well to routine, such as being fed at about

the same time each week, at about the same time of day. If your snake is most active at night (i.e., nocturnal), feeding in the evening may work best.

Shedding

The outer layer of our skin is made of dead cells, somewhat like the protective bark of a tree. These cells are shed continually, contributing to the dust in our homes, and are replaced by skin cells from below. Snakes also have a protective layer of dead cells, but they shed them all at once. How frequently this occurs depends on a number of factors. Young, rapidly growing snakes may shed monthly, while older snakes shed less often.

Roughly a week before the snake will shed, its skin will become dull or cloudy looking. Its eyes may look blue and opaque. This cloudiness lasts a few days. Then the skin clears for a few days, and finally the snake sheds. It will rub its nose on objects in the cage, until the outer layer of skin comes loose and starts to peel back over the head. The snake then crawls out of its old outer skin, often leaving it in one inside-out piece, like a sock taken off from the top. Underneath is a clean new protective layer, through which the snake's colors show at their best. The shed skin is thin, translucent, and damp at first. It dries rapidly and then feels like fragile tissue paper. Remove this skin from the cage once the snake is completely out of it. (I once had a baby rosy boa become dangerously tangled in an old skin.) If it does not come off entirely, try soaking the snake in tepid water (about 80°F) for 20 minutes or so. This usually loosens the stuck portions; if it doesn't, seek advice. This can become a serious problem if you ignore it.

Handling

Some snakes are slow-moving and easy to handle; others (including many baby snakes) are more active and "flighty." Remember that most snakes are used to being flat on the ground, and may become frightened if dangled. Use two hands, and support the body gently as you let the snake crawl from hand to hand. If the snake is prone to quick movements, and you are afraid that it might fall, hold it close to a carpeted floor (kneel or sit) and restrain it *gently* with your hands. This means letting it crawl slowly from hand to hand, through your loose grip. If you grip it too firmly, it may thrash, treat you to the contents of the scent glands at the base of its tail, and/or defecate on you. It may also injure itself thrashing about. If the snake appears to panic like this, put it back in the cage to calm down, and try again later. You will get used to the snake in time. It is a small animal, and easily may be frightened by a human's size and strength. Avoid sudden movements and *be gentle*. Try to teach the snake that you can be trusted. Also avoid making loud noises around snakes. Even though they have no external ears, research indicates that they *can* hear some airborne sounds.

Do not handle a snake any more than necessary between the time its skin becomes cloudy and when it sheds. Cloudy snakes cannot see well and may become frightened and bite.

In addition, a premature tear in the outer skin might lead to infection.

Snakes are not social creatures; being jostled and manipulated by another creature is not part of their normal routine. Some research indicates that handling is stressful even to tame snakes. Be conscious of this in deciding how often and for how long to handle your snake. If the amount of handling seems to negatively affect its feeding or other behavior, cut back some.

Most of the types of snakes we are discussing tend to be gentle, especially the captive-bred ones. However, snakes are individuals and some bite. (Never forget that all of them *can* bite, and may do so if frightened.) If your snake shows an inclination to bite, you might want to buy a pair of lightweight canvas gardening gloves, and wear them while holding it. Avoid gloves in which the snake's teeth might easily become caught and pull out (e.g., rubber, fuzzy cloth). Always keep any snake away from your face and eyes. If you are bitten, clean the scratch well, apply some antiseptic, and ask your doctor what other action he/she recommends. Snakes' mouths harbor many types of bacteria; your doctor may want your tetanus immunization to be up to date and caution you to report any infection. Try to protect a striking snake from injuring itself hitting glass portions of the cage. Do not let others tease it (e.g., tapping on the glass) and be sure the snake has one or more hiding places. If you must, cover the glass with paper for a while.

One last comment on this subject: Reaching for a snake after handling a mouse is asking for trouble! Think about it from the snake's perspective: It sees movement, *smells mouse* and. . . .

Hygiene

This topic, as regards *the snake*, has been discussed above. Keeping the cage and water clean are two effective ways to prevent illness in your snake.

It is also important to attend to *your* hygiene, and that of others who come in contact with your snake or its cage. Careful hand washing is wise after handling any small animal. Snakes and many other animals can carry bacteria (including some types of *Salmonella*) and other parasites which can cause serious illness in people (especially the very young, the elderly and the ill). More and more reptile experts, veterinarians and doctors are recommending that people wash carefully after handling reptiles (including snakes) or their cages. Thorough handwashing is particularly appropriate after cleaning a soiled cage, and cages and water bowls should not be cleaned in the kitchen.

Do not overreact to this, however. Human illness caused by contact with snakes seems to be unusual. I have kept many snakes (and other animals) during the last 30 years or so, and for the bulk of that time was completely ignorant of this issue. I thus took few precautions, but am not aware of ever having become ill from my pets. Now that we know more about the risk, however, I am more careful. This is an area of current research and discussion; no one knows yet exactly how careful

we need to be. Ask your veterinarian and doctor for their advice about this, especially if you plan to display your snake where the public will be invited to touch it.

Public Relations

Never display a snake uninvited in public, or use it to tease someone. We who find snakes attractive and interesting must remember that most people do not share our enthusiasm. Some people are so terrified of snakes that they may become hysterical at the unexpected sight of one. "Showing off" or carelessly displaying a snake in public is unwise for at least three reasons. First, the snake may be frightened or hurt; this is cruel. Second, reinforcing the public malaise about snakes and their keepers increases the chance that restrictive legislation will arise. More and more local laws are popping up here and there, restricting or abolishing the freedom of citizens to keep snakes. All that may be required for this to happen in your community is for one person to become so upset that he/she contacts a city council member, and insists that "something be done." (Not only might this affect you personally, but others whose lives might have been enriched by keeping snakes may not have the chance. I am probably teaching high school science today because of my snake hobby as a youth.) Third, as populated areas expand, snakes are in real trouble. The fewer people who kill every snake they see, the better for the natural world. I challenge you to do what you can to make people feel better about snakes, not to frighten them with yours.

This brings up the positive influence we can have, if we share our interest in snakes appropriately. Local schools and civic organizations are often delighted to have someone give a talk about something as unusual as snakes. They usually *want* to see a live one. The beneficial impact of this and other kinds of positive exposure to snakes may last a lifetime for some folks.

Snakes and other reptiles are becoming increasingly popular. We can help this trend along by doing what we can to foster a positive view of snakes, and a responsible image of those of us who keep them.

Some Helpful Resources

(These are only a few of many excellent resources available. You will learn of more as you read, and as you communicate with others.)

BOOKS

Beltz, Ellin, editor. 1989. *Care in Captivity*. Chicago: Chicago Herpetological Society. (This book is free with CHS membership.)

Mattison, Chris. 1990. *A-Z of Snake Keeping*. New York: Sterling Publishing Co., Inc.

Rossi, John V. 1992. *Snakes of the United States and Canada: Keeping Them Healthy in Captivity - Volume I, Eastern Area*. Malabar, FL: Krieger Publishing Company.

Rossi, John V., and Roxanne Rossi. 1995. *Snakes of the United States and Canada: Keeping Them Healthy in Captivity - Volume II, Western Area*. Malabar, FL: Krieger Publishing Company.

The Herpetocultural Library. This excellent series of short, inexpensive books includes titles dealing with particular species of snakes (e.g., corn snakes, milksnakes, ball pythons). The series is published by and available from Advanced Vivarium Systems, Lakeside, CA 92040, and in many pet stores.

T.F.H. Publications, Inc. (One T.F.H. Plaza, Neptune City, NJ 07753) also offers a number of affordable books on basic snake care, as well as titles dealing with particular groups (e.g., rosy boas). Many pet stores carry T.F.H. books.

ORGANIZATIONS

American Federation of Herpetoculturists, P.O. Box 300067, Escondido, CA 92030-0067.

Chicago Herpetological Society, 2060 N. Clark Street, Chicago, IL 60614.

Northern Ohio Association of Herpetologists, Department of Biology, Case Western Reserve University, Cleveland, OH 44106.

MAGAZINES

Reptiles, P.O. Box 58700, Boulder, CO 80322, (303) 666-8504.

Reptile & Amphibian Magazine, RD 3, Box 3709-A, Pottsville, PA 17901.

NEW TLINE

Comparable to the "low voter turn-out" for the election of our Illinois State Representatives were the annual elections for the 1996 CHS Board



of Directors on November 29, 1995, at the Field Museum. In the lobby, **Audrey Vanderlinden** distributed the ballots to CHS members. Not far away, Librarian **Jennie Picciola** was available at the library cart to answer any questions, while inside the A. Montgomery Ward Lecture Hall, President **Marcia Rybak** began the business portion of the meeting. Marcia thanked those who turned out to vote and introduced adoption chairperson **Char Haguewood**. Char has added a new category, "Others," which included mice and a mix of the more exotic species. The usual assortment of Burmese pythons, iguanas and box turtles were also available for viewing in the adoption book. Sadly, Char announced that she would be stepping down as Adoption Chair and was looking for a replacement. Marcia then introduced **David Golde**, who has begun a CHS subgroup known as the "Amphibian Club." Their first meeting was scheduled for 7:00 – 9:00 P.M. at the Skokie Public Library on December 14, 1995. David was followed by Merchandiser **Joan Moore**, who presented suggestions for holiday gifts ranging from embroidered T-shirts to hats, calendars and mugs.

Each year, the Awards Committee presents awards to members who have contributed to the Society, "Above and Beyond the Call of Duty." As President, Marcia Rybak chose Char Haguewood as the recipient of the "Presidential Service Award," remarking "I can't think of anyone who deserves it more. She has put us in the black this year." **Anthony Rattin** presented the "CHS Merit Award" to **Jenny Vollman**, who was selected by the Members-at-Large and the Sergeant-at-Arms for her outstanding service to the society. A precedent was set this year when the "Lifetime Service Award" was given to a team—Ron and Dottie Humbert. Ron and Dottie

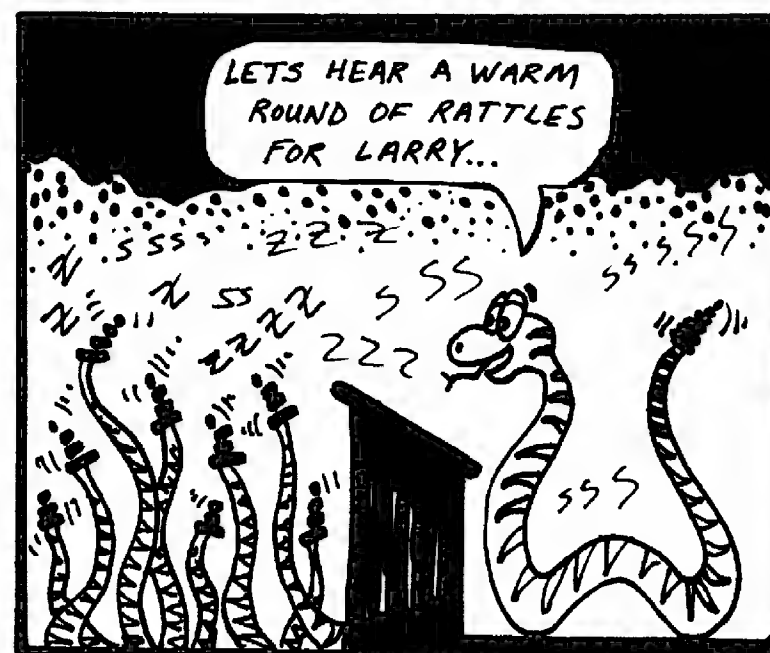
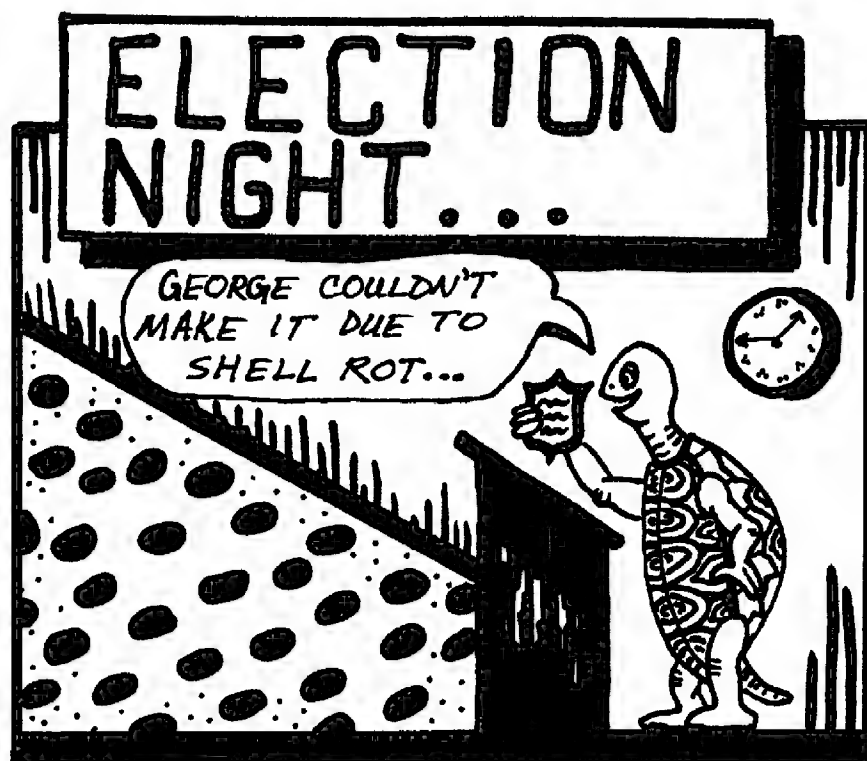
accepted the award modestly, as Ron remarked, "Dot and I have worked hard and played hard. . . . We can never give back to the Society what it has given us."

Following a short break and a raffle, **Nicole Marello** conducted the election proceedings. She asked for nominations from the floor for President through Sergeant-at-Arms, but none were given. Since the candidates ran unopposed and no nominations were received from the floor, the following members simply stood up as their name was called and were elected by acclamation: **Anthony Rattin**, President; **Chris Lechowicz**, Vice President; **Gary Fogel**, Treasurer; **Audrey Vanderlinden**, Recording Secretary; **Mike Dloogatch**, Publications Secretary; **John Driscoll**, Membership Secretary; **Brian Jones**, Corresponding Secretary; and **Art Nohlberg**, Sergeant-at-Arms.

It was then time to choose three from the five candidates seeking a Member-at-Large position. Each candidate gave a short election speech and the Member-at-Large ballots were collected and counted. **Gary Kostka**, **Jack Schoenfelder** and **Jenny Vollman** were elected as 1996 Members-at-Large. Our newly elected President, Anthony Rattin, closed the ceremonies by thanking all 1995 Board Members for their past service and support.

During the tallying process, members of the Society presented slide shows on various topics. **Ron Humbert** delighted us with his many photographs of tortoises, which included spurred, leopard, star and radiated tortoises, some of which had been his pets. Ron gave a bit of regional background on each and noted that tortoises have become very popular in the pet trade in recent years. He recommended that those interested in keeping them in captivity first read up on them extensively and be willing to provide them with the proper care and habitat. I was surprised and concerned to learn that the Galapagos tortoise, listed in Appendix II of CITES, is now commercially sold and is available with a proper permit.

The next speaker was **Brian Jones**. He showed us slides, "What I did on my summer vacation" style, of his recent trip with some friends to Phoenix, Arizona, and Baja California, Mexico to look for chuckwallas. He began with photos of the varied plant life and included many cacti. After arriving at



Keith 95

Bajia de Los Angeles they discovered the town had only a single phone and a single gas station—without gas. They had a guide take them by boat to an island in the Gulf of California, but remarked, “We didn’t pay him until he came back for us.” Camping out in a tent, with only the water they brought with them proved worthwhile—they found their chuckwallas. Brian had enough beautiful scenic photographs and so many interesting stories (including saving a beached whale) that a full program of his adventures was warranted.

Nicole Marrello took us on our next adventure to see the “Herps of Southern Illinois.” Her photographs were compiled to reveal the many trips she has taken there. Nicole uncovers “trailer park garbage heaps” to find many snakes, and “The local good ol’ boys help out with finding the candy canes,” (referring to red milksnakes). Other photos shown were of a black rat snake, timber rattlesnake, king snake, mud snake, copperhead, cottonmouth, eastern box turtle, fence lizard, tiger salamander, crayfish frog and ribbon snake. She recommended visiting Winters Pond in Shawnee National Forest to see the most amazing selection of Southern Illinois herps.

Mark Papernik’s hobbies include photographing reptiles

and building reptile cages. He showed us a beautiful library of photos he had shot over the years of friends’ collections of herps. Among the animals shown were: Dumeril’s boa, green snake, rosy boa, milksnake, alligator snapping turtle, painted turtle, Blanding’s turtle, spotted turtle, map turtle, wood turtle, musk turtle, leopard tortoise and radiated tortoise. From his own collection he showed photos of his ball python, blood python and red-footed tortoises.

Unfortunately, time does not stand still in the world of herpetological adventures. We had run out of time and the remaining three speakers scheduled would have to be postponed for a future presentation.

Newt wishes to congratulate those members selected for the 1996 Board of Directors and thanks those members who will not be returning to the Board for their hard work and support. I reflect fondly on the Society’s many great accomplishments in the past and look forward to those continued high standards it will set in the future.

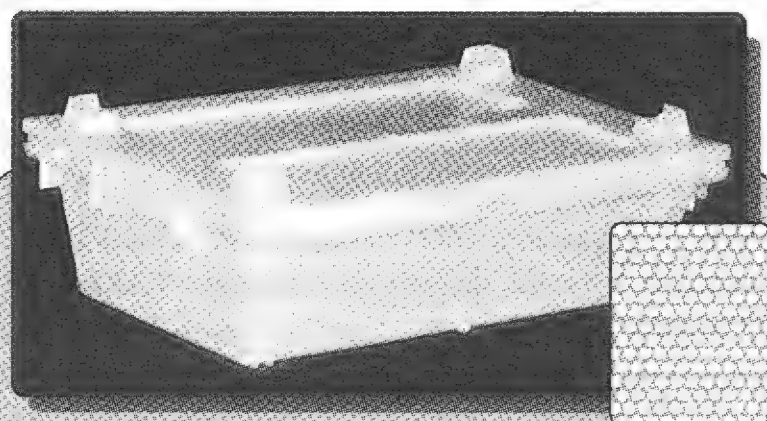
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HerPET-POURRI

by Ellin Beltz

Happy New Year!

And special thanks to all who've contributed to this column for the last ten years. This month, special thanks are due to Bill Burnett, P. L. Beltz, Mark T. Witwer, Steve Ragsdale, Clover Krajicek, Ray Boldt, Andy Viasmith, Lori King-Nava, Marty Marcus, Dreux J. Watermolen, Karen Furnweger, Alan Salzberg, Robert C. Danley, Denise and Frank Andreotti, E. A. Zorn, Kathy Bricker, Jack Schoenfelder, Theron E. Magers, David Webb, R. W. Hansen, Ernie Liner, Garrett Kazmierski, Jim Zimmerman, Sue Black, J. N. Stuart, David E. Johnson, and the usual suspects for their contributions. You can join this group of happy-clippers. Send the whole pages with herp stories or just the stories with the date/publication slug firmly attached with tape. Your name should be on every clipping sent; you can use address labels or rubber stamps or just scribble. Please do not use staples or self-adhesive notes—to see why staple newspaper together and try to separate without tearing. Those cute little yellow notes lift off type. Then I have to hold the note to the mirror to read what was lost! Send your contributions directly to me at: 1647 N. Clybourn Avenue, Chicago, IL 60614-5507. Letters only to my e-mail <uebeltz@uxa.ecn.bgu.edu>.

Congratulations...

Roger Conant received the Roger Tory Peterson "Nature Educator of the Year Award" for his "lifelong contribution to people's understanding and appreciation of the natural world." Dr. Conant authored the "Field Guide to Reptiles and Amphibians" in 1958, which showcased hand-colored photographs by his wife, Isabel Conant. He is an honorary member of the CHS and he has graced our *Bulletin* with recollections of the efforts put into the first edition of his field guide.

Tuatara-napper

Moko, the Newsletter of the New Zealand Herpetological Society, recently published an article from the New Zealand *Listener* [October 28 – November 3, 1995]: "... Among our reptiles, the unique tuatara holds pride of place on the collector's mantelpiece. . . . [A convicted smuggler's lawyer said] 'Asians, Japanese and Koreans, for example, with their fascination for reptiles, will pay *phenomenal* prices, \$60,000 to \$80,000 a pair'. . . . [An enforcement official said he] has heard of American buyers spreading the word that for tuataras they will settle the price on arrival: 'You get them there and the sky's the limit.' He worries that if attempts have been made to smuggle tuatara then statistically some must be slipping through the net." The article then described the activity of the same smuggler who has been put in jail twice for trading in tuatara. First he got three years after breaking into a museum and taking two young; and in another case for trying to get another animal into the U.S. The article continued: "Investigators believe that that tuatara was one of an unknown number taken from the . . . sanctuary in Cook Strait. They are haunted by the image of [the convicted man] stalking the island with a shovel in his hand and a sackful of tuatara; yet, although they intercepted his boat, they found him empty handed. He was

caught trying to smuggle a single tuatara when an alert courier company worker became suspicious. . . . [Officials] estimate that [he] is one of between 20 and 50 dealers of his ilk operating here." Also in the packet from NZHS, is their magnificent brochure on the reptiles and amphibians of that nation. It lists all the fauna and gives general legal guidelines as well as providing much other interesting information including how to join their society. You can contact them at 50 Pupuke Road, Birkenhead, Auckland 10, New Zealand, or call 09-480-5430, fax 09-480-7588.

Arizona Frog News

- Fossils believed to represent the earliest frogs known to science were identified from rocks collected in the 1980s about 60 miles northeast of Flagstaff. The 2-inch frog fossils date from about 190 million years ago in the Jurassic Period. The basic frog body style was already well developed. One paleontologist remarked "If you saw one of these alive, you would know right away it was a frog." [Albuquerque, NM *Journal*, September 11, 1995, from J. N. Stuart] A slightly more detailed report comes from *Science News* which reports that "unlike protofrogs from the earlier Triassic period, this . . . skeleton's pelvis is designed for transmitting the jumping force of the hind limbs to the rest of the body. The tail of its amphibian ancestors evolved into a short bone that fits entirely inside the pelvis. . . ." The original report by Neil H. Shubin and Farish A. Jenkins, Jr., was in the September 7 *Nature* [148(11) September 9, 1995:166, from Mark T. Witwer]
- Population figures of Ramsey Canyon leopard frogs have plummeted from the known 1988 population of about 60 adults in The Nature Conservancy's preserve to an alarming 16 adults. Besides the usual suspects of frog decline—contaminated water, viruses and bacteria, decreasing ozone protection—researchers suggest that the frog is on a boom/bust cycle and has eaten all the available food. They're raising tadpoles, seeding the pond with algae, videotaping adult behaviors, and "crossing their fingers" according to *Nature Conservancy* magazine. [September/October 1995, from J. N. Stuart]

Australian Frog News

- *The Deseret News* reports: "Australians harness frog power. . . . A rare Australian frog got a radio for the holidays, complete with batteries, after it was found in a brick pit near the site of the 2000 Olympic Games. The green and golden bell frog was fitted with the radio tracking device and antenna mounted on a special harness so that scientists can keep track of its movements. The frogs are on the endangered list and there are fears they could fall into an Olympic pool at the Homebush Sydney site. . . . [They] will measure the distances that the frog travels." [December 5-6, 1995, from David Webb]
- *The Wall Street Journal* reported that the green and golden bell frog has become a "green monster for Aussie Olympics. It moves into the site rubble, bogging things down; oh, the stormy sex scenes." Their habitat is an old brick pit in Syd-

ney, Australia, that was used as a location in the Mad Max movie, “Beyond Thunderdome.” Merely molesting a member of this endangered species can get you two years in jail and a fine of up to \$150,000 US. So, when the architects and planners realized that the brick pit had to go to put in facilities for the summer Olympics in the year 2000, they had a problem. The 2000 Olympics has been touted as an environmental event with public transportation, recyclable snack plates, solar-heating, and grey-water recycling. Even some of the stadiums are being built with salvaged materials. “Thus, mashing an endangered species under bulldozers is a little out of place. . . . To make matters worse, the frogs’ distinctive green and gold stripes happen to be Australia’s national sporting colors, which has given the frog a small but enthusiastic fan club pushing to have it named official Olympic mascot . . . marsupials are front-runners for the honor.” A biologist noted the Olympic qualities of the frog, “[Frogs are] good at long-jumping and high-jumping . . . [koalas] sleep all day.” The bell frog used to be much more common and was used for school dissections until Sydney’s urban sprawl wiped out its habitat. About 1,000 frogs are left in the wild. Biologists hoped to build a bunch of new ponds and toad tunnels as part of the Olympic project to save the frog. Then, they learned of another factor in the bell frogs’ decline. A fish imported to reduce mosquito larvae eats bell frogs, so any ponds built have to be separate from all other waterways. Also, they have to be deep enough to permit the frogs to escape predatory birds. “The frogs also have a taste for trashy decor. ‘You look under a nice rock and there’s nothing there’ said [a biologist]... ‘Then you pick up a piece of rotten old plastic and there’s five frogs going < Hey, put it back. > It’s a problem, because you can’t exactly leave old car tires dumped around the site.’” So, they’re building “designer rubbish” which has the characteristics seemingly enjoyed by the bell frogs, but has a nicer appearance for us humans. Each is stamped with “University of Sydney. . . . Do not disturb.” The frogs have not moved into the designer ponds yet, but they did colonize a demolition site of an old slaughterhouse which will be the commercial hub of the Olympics. The development people were not pleased. But Australian law is on the frogs’ side, so the developers must hop softly near the brick pit. One biologist pointed out that it’s not just any old brick pit, but “The Green and Golden Bell Frog theme park.” [August 2, 1995, from P. L. Beltz and Gary Casper]

Frogs do it

The “Bud” frogs are getting a lot of press. I do so hope some frog researchers have hit them up for research money. The first copy of the now-infamous *Chicago Tribune* Mike Royko column arrived from Daniel Kravitz [September 20, 1995]. Royko was in fine form describing what he called “one of the most peculiar sexually suggestive ads” he’s ever seen. So he called state herpetologist, Chris Phillips, at the Illinois Natural History Survey to find out about frog sex. Royko summarized Phillips’ description of frog sex as “Love ‘em for two days and leave ‘em, that’s the credo of your male frogs. . . . ‘It’s really pretty brutal the way it all happens.’ Obviously, he hasn’t researched the bars on Lincoln or Halsted.” The recent Bud frog ad campaign was created by DDB Needham of Chicago and uses animatronics-style animation techniques. The first

Frogs commercial, which was shown during last year’s Super Bowl, was done by D’Arcy Masius Benton & Bowles of St. Louis which no longer works for Bud. A representative of the new ad agency says that beer sales have been flat, or even down, and that Bud is hoping that the frogs give the product a new image for the peak 21- to 27-year-old market. [*Chicago Tribune*, September 4, 1995, from Lori King-Nava]

Cool, toepads!

A pair of young artists in Toronto have been wiping out graffiti by airbrushing large murals over the unsightly spraymarks. “Painting murals is much better than the typical bureaucratic response to graffiti . . .” remarked a councilor who noted that leaving a blank canvas for “taggers” seems to inspire more of the same. The photo with the article shows the young artists’ latest work, a treefrog with eyes as big as basketballs sticking politely to a leaf. [Toronto *Star*, September 17, 1995, from Lou Mason]

Information request

The IUCN/SSC has formed a new group called the Invasive Species Specialist Group and is seeking information on introductions of *Rana catesbeiana*, specifically: 1.) Sites/countries of bullfrog introductions (if possible distinguishing between direct introductions, escapes from farms/ranches and incidental introductions via fish stocking). 2.) Information on the impacts on native fauna. 3.) Information on known eradication measures—successes or failures. 4.) Whether or not any known bullfrog farms/ranches have been economically viable. 5.) Any other comments of importance on the subject. Contact Michael Lannoo, Muncie Center for Medical Education, Room 209 Maria Bingham, Ball State University, Muncie IN 47306-0230 USA. Please include any references to literature cited in your remarks as well as your experience with herps, job title, etc. Personal observations are welcome, too. [*Froglog*, June 1995, Number 13]

Frogwatching

Volunteer naturalists in Ontario have been recording anuran presence or absence after learning to identify the calls of the 14 different species found there. About a third of the volunteers live in rural areas, the remainder drive out to their designated route. The Canadian Task Force on Declining Amphibian Populations is working to establish more of these volunteer networks from coast to coast. [*The Spectator*, October 2, 1995, from Brian Bankowski]

Froghatching

- Shedd Aquarium recently reported the successful laying, hatching and raising of more than 100 golden mantella frogs. The tiny frogs are less than an inch long and little had been known about their husbandry. These natives of Madagascar are in trouble due to commercial overexploitation and habitat destruction and were placed on the CITES list shortly after the Aquarium began their breeding program. The species has also been protected by the Malagasy government and trade banned absolutely. The Aquarium recreated the mantellas’ natural habitat in vivariums and in less than six months, the first tadpoles were produced. [*WaterShedd*, September/October

1995, from Karen Furnweger] Also, mark your calendars! Shedd Aquarium will have an all frog exhibit starting in May 1996. I'll provide all the details as soon as they're available.

- The National Aquarium in Baltimore, Maryland, announced success with giant leaf tree frogs, a member of the poison dart frog group. Adults are the size of a nectarine, the baby looks to be about the size of a chorus frog. Scientists at the Aquarium have bred 22 other species of poison dart frogs, but this is the first reported success with *Phyllomedusa bicolor* in an institution. The article reports that it is believed the frogs can live to be 35 years of age. The Aquarium has had adults on exhibit for 12 years, but all the specimens were male. A female was added last year from Surinam. They found that their artificial rain system didn't do "it" for the frogs, and found out that a "pea-soup fog" was preferred by the anurans. The following morning, the female laid 1,947 eggs, each the size of a BB pellet. The eggs were laid on a leaf which the adults then rolled like a cigar and the male tried to fertilize them. Unfortunately, the leaf tipped over and many of the eggs weren't fertilized. About two weeks later, tadpoles emerged from the leaf and flipped into the water at the bottom of the vivarium. After metamorphosis, 23 froglets emerged. [Baltimore Sun, July 8, 1995, from Mark T. Witwer]

A Swede tooth?

More people in Sweden are bitten by adders than in any other European nation, according to a study by the Scottish Natural Heritage. Of the 77,000 people bitten by adders in Europe over the last 125 years, 95 died. Among the mortalities, 44 were in Sweden, 25 in Switzerland, 14 in Britain, and 7 in Denmark. Only 12 percent of the victims were female. [New Scientist, December 2, 1995, from Michael Dloogatch] And are the vipers singing "How Swede it is to take a bite off you?"

Another good reason to quit drinking

Two men in Anniston, Alabama, got a little tipsy after work and found a 4-foot rattlesnake. So they started to play catch with the snake, one catching it by the tail and throwing it to the other. The Emergency Service medic who was called said "Then the snake got tired of being caught by the tail." It bit one man on the hand; the other man tried to kill it. Then the snake bit the second man on the arm. He was pronounced dead at the Regional Medical Center about an hour later; and the first man was hospitalized. Medics said that they waited for an ambulance instead of driving directly to the hospital as soon as the bites occurred. [Gainesville Sun, September 8, 1995, from Ken Dodd; Houston Chronicle, September 9, 1995, from David E. Johnson]

Partners in slime?

- Two guys in Alexander County, Illinois, were out gigging frogs. They got busted. Seems they were doing it right in front of the site supervisor's home at Horseshoe Lake 1.5 hours before the frog season opened. [Chicago Tribune, August 23, 1995, from Steve Ragsdale]
- Somebody swiped two red-tail boas and an 8-foot Burmese python from their home in Eustis, Florida. The snakes' owner warns the big guy is hungry because he was due for a feeding

when he was snatched. No clues were found by the sheriffs' office deputies assigned to the reptile heist. The owner is a junior at the University of Central Florida who hopes to teach high school science after he graduates. Animals not swiped included baby rat snakes, iguanas, a coachwhip, two albino pythons (over 50 pounds apiece), some hedgehogs and two bearded dragons. The owner said, "Come and get the stereo. I can replace that. Just bring my snakes back." [Orlando, FL Sentinel, November 8, 1995]

- The Tony Lama Boot Company of El Paso, Texas, forfeited 907 pairs of boots worth more than \$1 million after a federal investigation into the illegal trade of exotic animal skins. A grand jury returned a 15-count indictment against people who used a fraudulent permit to sell skins to the bootmaker. The 907 pairs in question were made of protected caiman skin; it takes four animals to make one pair of the \$700 to \$1,000 boots. [Austin American-Statesman, September 16, 1995, from William B. Montgomery]

Boas perish in school fire

Four adult boa constrictors and about 50 rats died in a fire in a science lab at a Fresno Middle School. Damages were estimated at about \$300,000; repairs may take until September. The snakes appear to have started the fire with a heating lamp that had been placed inside their cage. Several other animals including three blue-tongued skinks, some mice and hissing cockroaches survived the fire. Several smaller snakes had recently been put in the science teacher's garage to hibernate. Although this is the fourth fire at a Fresno, California, school this year, officials are ruling out foul play. [Fresno Bee, December 3, 1995, from Bob Hansen]

Frequent flyers club

- America West Airlines refused to participate in a good-will effort by some 4th graders to ship a stuffed frog around the world saying "There are other people out there who aren't elementary school kids that could use a similar tactic to cause harm." The spokesperson suggested bombs could be hidden in such a container. [Chicago Tribune, May 23, 1995, from Steve Ragsdale]

- Dave Barry strikes again! In a syndicated column published December 17, 1995, in the Chicago Tribune, Dave takes on the difficulty he has with the concept of loose snakes on airplanes. He describes the incident reported here earlier this year wherein a snake got loose from a gym bag and was noticed while it "planned" to "attack" a young passenger in the row behind its owner. The parents of the young passenger are suing the airline for megabucks. Dave writes: "As a frequent flier, I find this ironic. I mean, when I fly, I have to go through a checkpoint staffed by beady-eyed security personnel who act deeply suspicious about my laptop computer as though I'm going to leap up in the middle of the flight and yell, 'Take this plane to Cuba, or I'm going to reformat my hard drive!' And yet these same personnel just let this guy waltz through carrying a major snake. . . . On a recent flight I was handed a piece of alleged chicken that was much scarier than anything Sigourney Weaver ever fought with a flamethrower. . . ." [Also received from Jim Zimmerman]

Herpetology 1996

In this column the editorial staff presents short abstracts of herpetological articles we have found of interest. This is not an attempt to summarize all of the research papers being published; it is an attempt to increase the reader's awareness of what herpetologists have been doing and publishing. The editors assume full responsibility for any errors or misleading statements. JCM

MADAGASCAN COLUBRIDS, TWO NEW SPECIES

C. J. Raxworthy and R. A. Nussbaum [1994, Misc. Publ. Museum of Zoology, University of Michigan (182):1-37] review *Pseudoxyrhopus*, the largest endemic genus of Madagascan colubrids. They describe three new species, and transfer *P. dubius* to the genus *Heteroliodon*. *P. ankafinaensis* is a new species from Betsileo based on a single specimen collected 1882 from an area that is 1300-1540 m in elevation. *P. kely* is from the southeast coast at Manden and Ste. Luce Strand at elevations of 10-20 m in a moist littoral forest. This is a fossorial snake, and one of the specimens contained a specimen of the diurnal skink, *Amphiglossus melanopleura*. All of the *Pseudoxyrhopus* appear adapted for specific types of primary forest and are unable to use secondary forest habitats. The authors suggest the newly described species *P. ankafinaensis* may be restricted to fragments of forest, or possibly extinct.

CALL RECOGNITION IN GREEN TREEFROGS

S. E. Allan and A. M. Simmons [1994, Animal Behavior 47:1073-1086] report that the green treefrog, *Hyla cinerea*, has two calls in its vocal repertoire, the advertisement call and the aggressive call. The vocalizations are similar in frequency composition, but differ in the rate of amplitude modulation (waveform periodicity). The ability of male green treefrogs to respond to signals differing in modulation rate and depth was tested with an evoked-calling paradigm. Males are significantly more likely to vocalize in response to playbacks of stimuli modulated at the waveform periodicity of the conspecific advertisement call, and less likely to vocalize in response to stimuli modulated at the rate of the conspecific aggressive call, or to stimuli modulated at the rate of a heterospecific advertisement call. Male vocal responses show similar changes with modulation rate in response to either modulated calls (containing both spectral and temporal cues) and modulated noise (containing temporal cues alone). Decreasing the modulation depth eliminates the effect of modulation rate on the males' vocal responses. Changes in response are consistent across both field and laboratory conditions. The results suggest that the temporal features of amplitude modulation play an important role in call recognition in the natural environment.

CORAL SNAKE PHYLOGENY

J. B. Slowinski [1995, J. Herpetology 29(3):325-338] uses 18 species of coral snakes in the genera *Leptomicrurus*, *Micruroides* and *Micrurus* for morphological and allozymatic characteristics. Two species of kraits (*Bungarus*) were included as outgroups. The results showed that coral snakes are morphologically conservative and few informative morphological characters were found. The results support monophyly and the author suggests returning *Leptomicrurus* to *Micrurus*, with *Micruroides* being the sister group to all other coral snakes.

SALVAGE OF EGGS FROM ROAD-KILLED SLIDERS

J. K. Tucker [1995, Chelonian Conservation and Biology 1(4): 317-318] attempted to salvage and incubate eggs from road-killed red-eared sliders, *Trachemys scripta elegans*. This study reports results from 32 turtles found struck by vehicular traffic, including hatching success for 67 eggs removed from nine turtles. Of 32 turtles with oviducal eggs, 23 contained no unbroken eggs. The author observed American crows (*Corvus brachyrhynchos*) and fish crows (*C. ossifragus*) removing eggs from the opened carapaces of some turtles. Eggs from two relatively intact turtles had higher hatch rates (30 of 35 = 85.7%) than eggs from turtles with opened carapaces (13 of 32 = 40.6%). Of the seven turtles with open carapaces, two, with estimated times since death of at least 3 hours, contained a total of five eggs. Only one of these (20%) hatched. This study documents that a significant percentage of oviducal eggs removed from road-killed female turtles may hatch.

THE STRIPED NEWT IN GEORGIA

C. K. Dodd, Jr., and L. V. LaClaire [1995, Herpetological Natural History 3(1):37-46] sampled a total of 108 ponds and wetlands throughout the Atlantic Coastal Plain of Georgia to determine the distribution of striped newts (*Notophthalmus perstriatus*). Sampling was concentrated at or near sites where striped newts had been reported historically. Several historical sites could not be located because of vague collection data; at least one pond has been destroyed. Striped newts presently are known from five, widely disjunct locations, including a pond near the type locality where the species was discovered in the 1920s. All sites are associated with well-drained, sandy uplands and terraces adjacent to rivers and large streams. Two routes of Pleistocene colonization are hypothesized, one following river terraces in the west and the other following marine and river terraces in the east. The extent of past and continuing habitat alteration suggests that the remaining populations are isolated. The authors recommend initiation of immediate efforts to monitor, conserve and manage known striped newt breeding ponds and adjacent uplands.

AMERICAN CROCODILES AT A POWER PLANT SITE

L. A. Brandt et al. [1995, Herpetological Natural History 3(1): 29-36] conducted surveys for distribution and nesting of American crocodiles (*Crocodylus acutus*) from 1983 through 1993 at Florida Power & Light Company's Turkey Point power plant site in Homestead, Florida. The number of crocodile nests, hatchlings, and non-hatchlings observed per survey have increased over the 11-year period. The percentage of animals in each size class fluctuated from year to year. The authors estimate that 24-30 non-hatchling crocodiles reside on the site. First year survival of hatchlings averaged 8.5% and varied from year to year.

NEW SPECIES OF CLAWED TOAD FROM ETHIOPIA

R. C. Tinsley [1995, *Amphibia-Reptilia* 16(4):375-388] describes *Xenopus largeni*, a new species of African clawed toad from the Bale Mountains region in southern Ethiopia. A series of small field samples indicate a maximum body length for females of about 50 mm. The new species is a 3-clawed *Xenopus*, distinguished by a rounded snout with relatively small eyes, a dark brown dorsal coloration lacking large spots or patches (which are common elsewhere in the genus), the absence of both a subocular tentacle and a metatarsal tubercle, and a small number of lateral line plaques (18 or 19 transverse plaques between eye and vent). The new species occurs in a region noted for the high proportion of endemic taxa in its fauna and flora; it occurs sympatrically with the single previously-known Ethiopian *Xenopus*, *X. clivii*, at an elevation of about 2600 m, but is easily distinguished from this 4-clawed species. The new species has a chromosome number of $2n = 36$; a series of biochemical and genetic studies indicate that it is most closely related to *X. laevis* and *X. gilli*, and that it is relatively distant from the three species that are its nearest geographical neighbors, *X. clivii*, *X. borealis* and *X. muelleri*.

SIZE VARIATION IN SOMALILAND LEOPARD TORTOISES

M. R. K. Lambert [1995, *Chelonian Conservation and Biology* 1(4):269-278] found that leopard tortoises, *Geochelone pardalis*, in Somaliland ($n = 26$) were larger than elsewhere in Africa. Carapace length ranges in mature males and females in Somaliland were respectively 578–650 and 518–654 mm—sexes were not significantly different—and elsewhere in Africa (museum material) 139.5–361 and 215–430 mm. Body weight of mature males and females in Somaliland had ranges of 23.0–31.4 and 16.2–31.9 kg, and frequencies of heavy animals were greater than in eastern Zambia, where animals were utilized by local people as food. Assuming approximately annual deposition of growth annuli up to 24 years, scute increments in Somaliland were greatest during years 5–15; the rate was higher and variation greater than in animals elsewhere with more uniform growth. Carapacial outline was more elongate, and anal scutes more divergent in males than females.

TUATARA SOCIAL BEHAVIOR

J. C. Gillingham et al. [1995, *Herpetological Monographs* 9: 5-16] studied the social behavior of tuatara, *Sphenodon punctatus*, in a natural population on Stephens Island, New Zealand, from January to March, 1987–1989. Study sites were located in both wooded (bush) and open (paddock) habitats. Nocturnal observations were enhanced by using night-vision equipment and elevated viewing platforms. Individuals were identified by idiosyncratic differences in crest morphology. At the peak of courtship activity (late January to the end of February), the behaviors of territorial males were observed and their responses to visual stimuli were tested in the field. Visual stimuli were found to be of significance. A radio-controlled, life-sized tuatara model revealed the importance of nuchal and dorsal crests and female head-nodding in the initiation of male courtship and mating behaviors and territorial defense.

SURVIVAL OF HEAD-STARTED KEMP'S RIDLEYS

C. W. Caillouet, Jr., et al. [1995, *Chelonian Conservation and Biology* 1(4):285-292] report on survival rates of head-started Kemp's ridley sea turtles (*Lepidochelys kempi*). During the experiment, the National Marine Fisheries Service's Galveston laboratory reared, tagged, and released 22,255 yearlings of the 1978 to 1992 year classes along the coasts of Texas, west Florida, and Campeche, Mexico. A total of 805 recaptures were recorded (3.6% of the yearlings released). Annual survival rate, S , was estimated from recaptures of successive age groups. Values of S_{2-3} (annual survival rate estimated from recaptures of age groups 2 and 3 years) were probably more reliable than those of S_{3-4} and S_{4-5} because they were based on larger numbers of recaptures. For Texas releases S_{2-3} ranged from 0.10 in the 1980 year class to 0.43 in the 1986 year class. For Florida releases S_{2-3} ranged from 0.36 in the 1978 year class to 0.50 in the 1979 year class. With recaptures from year classes combined, S_{2-3} was lower for Texas releases (0.15) than for Florida releases (0.39). Because of tag loss and uncontrollable factors affecting the reporting of recaptures, S estimated from recaptures of foreflipper-tagged turtles are crude approximations which underestimate true survival at sea. A constant S of 0.45 would be required to produce one survivor at age 10 yr (assumed age at maturity) from the average Texas release of 1437 yearlings per year. If S were higher than 0.45 or increased with age, then more head-started ridleys could have survived. It remains to be determined whether head-started Kemp's ridleys survive to maturity and nest.

A NEW GENUS AND SPECIES OF MICROHYLID

E. R. Wild [1995, *Copeia* (4):837-849] describes *Altigius alios*, a new species and genus of microhylid frog from Amazonian Perú. The new genus is diagnosed by an incomplete maxillary arcade, which is an independently derived characteristic of the genus. Furthermore, the new species possesses a remarkably large, Type-2 suspension feeding tadpole with unique, large, scalloped flaps pendant over the mouth. Phylogenetic analysis of New World microhylid genera supports a hypothesis in which the new genus is derived relative to *Ctenophryne*, *Otophryne*, and *Nelsonophryne* and is the sister taxon to the remaining genera.

MAXIMUM SIZE OF THE AMERICAN ALLIGATOR

A. R. Woodward et al. [1995, *Journal of Herpetology* 29(4): 507-513] report that the longest male and female alligators (*Alligator mississippiensis*) measured in Florida during 1977–1993 were 426.9 cm (14.0 ft) and 309.9 cm (10.2 ft) total length. The heaviest male and female alligators weighed 473.1 kg (1042.1 lbs) and 129.3 kg (284.8 lbs). The authors present a predictive model for calculating total length from head length. Estimated total lengths for three large alligators described in the literature were substantially shorter than reported lengths. The longest alligator for which a total length could be corroborated from skull measurements was 454 cm (14.9 ft). The authors discuss the plausibility of past reports of exceptionally large alligators with respect to verified lengths of specimens, harvest pressure, growth patterns, and longevity.

Advertisements

For sale: rats and mice—pinkies, fuzzies and adults. Quantity discounts. Please send a SASE for pricelist or call Bill Brant, *THE GOURMET RODENT*, 6115 SW 137th Avenue, Archer FL 32618, (904) 495-9024.

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For sale: herp books. Auerbach–*The Amphibians and Reptiles of Botswana* (S), \$75; Neill–*The Last of the Ruling Reptiles*, \$70; Maki–*Monograph of the Snakes of Japan*, 3 vols., \$450; Schmida–*The Cold-Blooded Australians*, \$60; Pitman–*A Guide to the Snakes of Uganda* (1974 reprint), \$250; Halstead–*Poisonous and Venomous Marine Animals*, \$300; Wager–*Frogs of South Africa*, \$35. Other titles available and I am always interested in acquiring new titles. Make check or money order to: Keith Neitman, 11415 Longbrook, Houston TX 77099

For sale: 2' Neodesha cage, with tempered glass, new, \$30; male and female northern pine snakes, c.b. '95, high contrast, \$40; female Indonesian blue-tongue skink, c.b. '94, \$100; male and female Borneo short-tailed pythons, c.b. '95, beautiful and tame, \$125 each. (708) 361-5835.

For sale: **Diamonds in the desert!!** Desert Oasis Reptiles is reducing our personal collection due to new family addition. The following top quality animals are offered. Two male and five female Kleinmann's tortoises, *Testudo kleinmanni*, long-term captives, vet checked and clean, kept outdoors in sunny Arizona, breeding activity, \$1000 for group; three c.b. '95 inland bearded dragons, *Pogona vitticeps*, well started, \$60 each; one male and one female *Uromastix ocellatus ornatus*, adults, long-term captives, vet checked and clean, chunkers, \$300/pair; eight *Uromastix a. acanthinurus*, c.b., parents' origin is Morocco, well started, "little gems," \$250 each; one male and one female *Uromastix acanthinurus* ssp., possibly new undescribed subspecies from Mali, vet checked, male is bright yellow with black head, legs and tail, female is shades of tan with gold speckles on back, "screamers," \$650/pair; one male and one female painted/clown agamas, *Laudakia stellio brachydactyla*, adults, vet checked and well started, beautiful orange crossbands, \$120/pair. Please call (520) 887-6880 and leave message for Mike. [Arizona resale permit #10-158470-Q]

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For sale: two male and two female captive raised Timor monitors, one female has produced eggs, \$650. Dan, (312) 275-4716.

For sale: captive-bred Dumeril's monitors, *Varanus dumerilii*, \$330 (10% discount to herp society members, \$297). Mike, (770) 987-3933. [GA]

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For sale: c.h. 1995 Cape gopher snakes, *Pituophis melanoleucus vertebralis*, \$75. Pete, (602) 974-9408. [AZ]

For sale: four male and one female ball pythons, various sizes, colors and pattern morphs, all are c.b., photos available, \$75–300; two female Argentine boas, beautiful c.b. '95, \$175 each; one male and one female spotted pythons, unrelated, \$225/pair; two female Children's pythons, c.b. '95, well started, \$225 both or \$125 each; one male diamond × carpet python, c.b. '95, parents are absolute screamers, growing fast, \$300. Gary Schiavino, (908) 321-0859. [NJ]

For sale: seven Amazon tree boas, c.b. October '95, garden phase \$50 each, yellow \$125; two adult Irian Jaya blue-tongued skinks, long term imports, \$200 each. Jim Kavney, (305) 664-2881. [FL]

For sale: one male and five female *Boa constrictor amarali*, born 11/95. The holotype from São Paulo, Brazil. \$750 each. Rolf Mikkelsen, Valhøjs alle 83.7.th, DK-2610 Rødovre, Denmark. Phone: + 45-31414783.

Advertisements (cont'd)

For sale: 6½' female boa constrictor, proven breeder, \$200; c.b. '92 male Arizona mountain kingsnake, \$125. Jack Phillips, (708) 724-4552.

For sale: captive-bred snakes. Blood pythons, Burmese pythons, Kenyan sand boas, black rat snakes, bull snakes. Will deliver in Chicago metro area or ship from O'Hare Airport. Joan Moore, (312) 528-4631.

Internship: The MVS Reptile Zoo, a nonprofit organization, is seeking student interns for the 1996 spring, fall and summer seasons. MVS is an educational exhibit, reptile breeding and venom research facility, located near Kentucky's Red River Gorge and Natural Bridge State Park. The intern will assist in the captive maintenance of the zoo's reptile collection, collect admissions to the exhibit, give interpretive talks and interact with the public, assist with educational outreach programs and perform other duties as assigned. In addition, the intern will be responsible for the completion of at least one research project related to the field of herpetology. The intern will **not be involved** in the handling of any venomous reptiles. Desirable qualifications include a willingness to handle snakes and other reptiles on a daily basis, ability to communicate effectively with people, writing skills, orientation to details, and self-motivation. Students majoring in the biological or natural sciences are preferred. Former interns have arranged for academic credit with their colleges or universities. Salary and benefits include experience with the most extensive and diverse collection of snakes in the area, housing and \$55/week in pay. Personal transportation is recommended. Starting dates are flexible, but a minimum commitment of three months covering SPRING (March–May), or SUMMER (June–August), or FALL (September–November) is required. To apply send a cover letter and resumé to: James R. Harrison, Executive Director, MVS Reptile Zoo, 1275 Natural Bridge Road, Slade KY 40376. Deadlines for applications are: SPRING, February 1; SUMMER, March 20; and FALL, June 15, 1995.

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Tours: Custom-designed tours to Costa Rica, Panama, Belize and Guatemala. Expeditions to fit the specialized needs of herpers, photographers, educators, writers, professionals in search of data, and travelers just interested in visiting these countries (with or without their families). From \$649. Steve Faust, (800) 894-TOUR.

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Tours: Limited bookings available for guided tours of herpetological collection sites in Nevada. Call or fax (702) 471-0240 for reservations. For a brochure send SASE to: CRC, P.O. Box 0731, Las Vegas NV 89125-0731.

Wanted: male Mexican black kingsnake (*Lampropeltis getula nigrita*). Tom McDowell, (618) 549-3897, evenings. [southern IL]

Wanted: javelin sand boa, *Eryx jaculus* (any subspecies), c.b. only. Scott Miller, (708) 870-8628.

Wanted: Styrofoam boxes, any size or shape so long as they're not flimsy, preferably with cardboard liners, willing to pay from \$2 to \$5. Bring to CHS meetings. Scott J. Michaels, D.V.M., Serpent City, (815) 363-0290.

Line ads in this publication are run free for CHS members — \$2 per line for nonmembers. Any ad may be refused at the discretion of the Editor. Submit ads to: Michael Dloogatch, 6048 N. Lawndale Avenue, Chicago IL 60659, (312) 588-0728 evening telephone or (312) 782-2868 fax.

Unofficial Minutes of the CHS Board Meeting, December 15, 1995

The meeting was called to order at 8:30 P.M. Board members Brian Jones, Art Nohlberg, Mike Ross, Marcia Rybak, Jack Schoenfelder and Steve Vick were absent.

Officers' Reports:

The Minutes of the November board meeting were read, corrected and approved. The Treasurer's Report was read and accepted.

Membership: Current membership is 1643. Jill Horwich and Audrey Vanderlinden will convene a meeting of the membership drive committee after the New Year.

Committee Reports:

Legislative: The January 1996 meeting will feature speakers from IDOC and USF&W. The topic will be laws and permit requirements regarding endangered animals. The speakers will be available to answer questions. This is a rare opportunity for CHS members to get a clearer understanding of laws and law enforcement regarding herpetoculture. Jill Horwich and Char Haguewood will coordinate the question-and-answer portion of the program.

1996 Expo: The 1996 Expo will soon be upon us. It's scheduled for Memorial Day weekend. We need a volunteer for Expo committee chair. If interested, please contact any board member as soon as possible.

Grants: Because Jack Schoenfelder and Tony Rattin were not present, this topic was tabled until January.

Adoptions: Char Haguewood has resigned as adoption chair effective December 31, 1995. A new adoption chair will be appointed in January. Three people have already expressed an interest in this position. Any other interested members should contact Tony Rattin before the January board meeting.

Director of Sales:

The Director of Sales is currently preparing to take the end-of-year physical inventory.

Old Business:

Bulletin Board: Nicole Marrello will have a "bulletin table" at each of the general meetings, while Gary Fogel organizes a search party to locate the CHS Bulletin Board. Once the Bulletin Board has been found, Nicole will begin using it in lieu of the table.

Breeders' Expo: The board plans to create a committee in January, the purpose of which shall be to determine whether the CHS should sponsor a captive breeders' expo and dry goods sale, and if so, to coordinate that event.

New Business:

All CHS Committees should be represented at each board meeting. This includes the library, the adoption service, the annual Expo committee, the Grants committee, etc. Anyone

chairing a committee should either make arrangements for someone from that committee to appear at board meetings, or should call the board president prior to the meeting with his/her report.

Daryl Karns, of Hanover College, Indiana, contacted Mike Dloogatch with a request for the CHS mailing list printed on pressure-sensitive labels. He would like to send fliers regarding an upcoming Symposium in honor of Sherman Minton. The board agreed to request that Mr. Karns provide the CHS with a supply of the fliers, which we will then have inserted into the *Bulletin*. If that plan is unacceptable to Mr. Karns, the CHS will provide the labels.

Round Table:

Gary Kostka volunteered to help with the Arlington Pet Show, should Jenny Vollman and Marcia Rybak need assistance.

Audrey Vanderlinden reported the opening of a new pet shop on the far north side of Chicago, specializing in the care of exotic animals. The owner is very conscientious and interested in education.

John Driscoll suggested the CHS participate in the annual pet industry trade show in October. A discussion was held regarding the CHS' role in the pet trade, if any. Perhaps Mardel Labs would want to sponsor a table for the CHS. Audrey Vanderlinden will approach Ty Park regarding this idea.

The meeting adjourned at 10:55 P.M.

Respectfully submitted by the Recording Secretary, Jill Horwich

HERP-ACROSTIC #8 by Mike Dloogatch

1	M		2	H	3	M	4	F	5	O		6	E	7	F	8	O	9	M	10	H	11	I	12	J	13	N	14	C		15	E	16	A	17	W		18	M	19	V	20	G	21	D	
	22	E	23	U		24	H	25	U	26	C		27	O	28	P	29	F	30	T	31	K	32	E	33	V	34	N	35	A	36	M		37	A	38	C		39	F	40	G	41	J		
42	W		43	K	44	G	45	L	46	V	47	H	48	E		49	D	50	B	51	A	52	E	53	M	54	L	55	U		56	G	57	F	58	Q	59	E		60	O	61	C	62	W	
63	T	64	M	65	H	66	A	67	L	68	F	69	P	70	B		71	H	72	I		73	G	74	M	75	I		76	M	77	F	78	O	79	P		80	D	81	U		82	T		
83	R	84	F		85	V	86	C	87	S	88	M	89	L	90	E	91	P	92	G	93	B	94	F		95	Q	96	C	97	U	98	G		99	U	100	I	101	F	102	E		103	M	
104	H	105	K	106	U	107	G		108	E	109	F	110	B		111	T	112	O	113	D	114	F	—	115	I	116	A	117	H	118	J	119	G	120	S	121	L	122	U	123	B	124	V	125	C
	126	M	127	N	128	R	129	S	130	B	131	D	132	H		133	A	134	M		135	L	136	S	137	K	138	F		139	G	140	Q	141	A	142	V	143	D	144	M	145	W			
146	K	147	M	148	E		149	O	150	T	151	I	152	J	153	G	154	Q		155	R	156	S		157	C	158	O	159	F	160	K	161	H	162	T	163	P		164	M	165	N	166	L	
	167	M	168	W	169	E	170	S	171	F	172	T	173	Q		174	W	175	C		176	I	177	H	178	A	179	M		180	U	181	Q	182	M	183	D		184	F		185	U			
186	I	187	P		188	V	189	B	190	R	191	E	192	F	193	M	194	G		195	H	196	L	197	N	198	F	199	A	200	B	201	P	202	M		203	T	204	L		205	G	206	Q	
207	W	208	U	209	J	210	K																																							

How to solve this puzzle: The diagram, when filled in, will contain a quotation from a published work on herpetology. The numbered squares in the diagram correspond to the numbered blanks under the WORDS. The WORDS form an acrostic: the first letter of each spells the name of the author and the title of the work from which the quotation is taken. The letter in the upper right-hand corner of each square indicates the WORD containing the letter to be entered in that square. The solution will appear in next month's *Bulletin*.

CLUES

- A. Froglike.
- B. Orpheus's wife, killed by the bite of a venomous serpent.
- C. _____ tortoise.
- D. English translation of *Cyrtodactylus* (two words).
- E. Author of *The Caecilians of the World: A Taxonomic Review* (full name and middle initial).
- F. *Elaphe obsoleta rossalleni* (three words).
- G. A dish made of sausages baked in a batter (hyphenated).
- H. Author of *Handbook of Amphibians and Reptiles of Kansas* (full name and middle initial).
- I. The state or condition of being indigenous only in a specified area.
- J. Home for Peringuey's viper.
- K. Habitat one might expect for *Antaresia perthensis*, based on one of its common names.

WORDS

- 141 37 66 178 199 51 16 133 116
35
- 50 189 200 70 110 123 93 130
- 157 96 175 61 125 86 38 26 14
- 49 21 183 143 131 80 113
- 59 6 148 108 90 191 48 15 52
102 32 22 169
- 57 4 7 192 159 101 29 68 84
39 114 184 198 138 109 77 94
171
- 73 98 92 194 153 119 20 56 205
139 40 107 44
- 2 177 65 161 10 47 117 132 104
71 24 195
- 186 100 115 75 151 11 72 176
- 209 152 41 118 12
- 105 146 210 31 137 43 160
- L. State in which one might expect to encounter *Gyrinophilus palleucus*.
135 67 204 45 196 54 121 89 166
- M. Symbol of the medical profession, usually depicted as entwined with a serpent (four words).
164 74 193 202 88 182 76 134 147
18 144 179 103 9 64 167 3
126 1 53 36
- N. Methuselah's father.
13 34 127 197 165
- O. _____ whipsnake.
149 60 78 27 112 5 158 8
- P. Adjective commonly applied to *Lacerta lepida*.
91 201 187 28 69 79 163
- Q. Infectious, usually fatal, disease of cattle and sheep.
95 154 173 181 58 140 206
- R. Body part on which the mental scales can be found.
128 83 155 190
- S. _____ anole.
129 156 120 170 136 87
- T. Tall, cultivated Central American grass, closely related and probably ancestral to corn.
82 150 63 172 203 162 30 111
- U. Ready-made (hyphenated).
99 185 23 180 122 55 97 25 208
106 81
- V. Snakebird.
19 85 188 142 124 46 33
- W. Toothed.
62 17 174 207 168 145 42

News and Announcements

GREAT LAKES DECLINING AMPHIBIANS CONFERENCE

The first meeting of the Great Lakes Working Group of the Declining Amphibian Populations Task Force will be held Saturday, March 30, 1996, at the Milwaukee Public Museum in Milwaukee, Wisconsin. The Great Lakes region encompasses the states of Minnesota, Wisconsin and Michigan. Papers are solicited on any aspect of amphibian research, education or monitoring in the region. Abstracts with a title, presenter name, address and phone/fax/Email numbers should be sent to the conference coordinator below. Abstracts sent by Email are greatly preferred. To register a preregistration fee of \$5 payable to the Milwaukee Public Museum, Inc., should be sent to the conference coordinator, Gary S. Casper, Milwaukee Public Museum, 800 W. Wells Street, Milwaukee WI 53233. Voice (414) 278-2766. Fax (414) 278-6100. Email gsc@csd.uwm.edu

FIRST ANNUAL MEPS CONFERENCE

Midwest Exotic Pet Seminars (MEPS), in cooperation with the Chicago Veterinary Medical Association, will present its first annual conference on March 30-31, 1996, at the Hyatt Regency Oak Brook in Oak Brook, Illinois. MEPS was founded in 1995 through the cooperation of local exotic animal veterinarians and the Chicago Veterinary Medical Association Exotics Committee to produce high-quality seminars addressing veterinary issues concerning all exotic pet species. The five veterinarians speaking at the conference will be Dr. Stephen L. Barten, Dr. Susan A. Brown, Dr. Jeffrey R. Jenkins, Dr. Douglas R. Mader and Dr. Karen Rosenthal. Subject matter will include basic information as well as advanced state-of-the-art topics directed primarily to veterinary practitioners. Thirteen hours of continuing education credit will be offered to veterinarians. For information contact J. B. Bruederle, D.V.M., Burnham Park Animal Hospital, 1025 S. State Street, Chicago IL 60605, (312) 663-9200.

FIFTH ANNUAL WEZAM EXOTICS CONFERENCE

The WEZAM Club (Wildlife, Exotic and Zoo Animal Medicine) at the University of Wisconsin School of Veterinary Medicine will hold its fifth annual WEZAM Exotics Conference, April 13-14, 1996, in Madison, Wisconsin. This year's conference will focus on disease management, surgical and diagnostic techniques, metabolic disorders, anesthesia and husbandry of reptile and small mammal "pocket" pets. Call the WEZAM office for more information at (608) 265-6319.

METRO TORONTO REPTILE SYMPOSIUM

The Metro Toronto Reptile Symposium, hosted by Port Credit Pet Centre, will be held Saturday, April 27, 1996. The keynote speaker will be Dave Barker. Other speakers include Tom Huff, Jeremy Huff, Mike Burger, Grant Ankenman, Chris Palmer, Al Kardon and Karl Peterson. For information, call or fax Grant at (905) 274-8018.

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UPCOMING MEETINGS

The next meeting of the Chicago Herpetological Society will be held at 7:30 P.M., Wednesday, January 31, at the Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, in Chicago. Our speakers will be Special Agent David Kirkby from the U.S. Fish & Wildlife Service, and Officer Sheila O'Connor from the Illinois Department of Conservation. They will provide "An Update on Reptile and Amphibian Laws." Topics covered will include permits, CITES, the federal Endangered Species Act, the Lacey Act, and Illinois herp laws and protected species. The speakers will be prepared to answer questions from the audience.

On February 28 wildlife biologist Joseph Wasilewski will be the featured speaker. His topic will be "The Natural History of Florida Bay Reptiles and Amphibians and Everglades National Park, with Special Attention to the American Crocodile and Diamondback Terrapins."

We are required to use the entrance on the west side of the museum. We have permission to use the staff parking lot to the west of the museum. Entrance to this lot is from McFetridge Drive, the wide street just to the south, between the museum and Soldier Field. There is also free parking available in the lot to the north of the museum. The #146 CTA bus goes directly to the museum. Unfortunately, it does not operate past 9:00 P.M. However, after the program anyone needing a ride to a CTA stop will have no trouble finding one—just ask any board member.

Turtle Club

The Chicago Turtle Club will meet Sunday, January 28, 1:00–3:30 P.M., at the North Park Village Nature Center, 5801 N. Pulaski, in Chicago.

Turtle Club

The newly forming Amphibian Club will hold its second meeting on Thursday, January 18, 7:00 – 9:00 P.M., at the Skokie Public Library, 5215 Oakton. For information on this group, call Dave Golde at (708) 679-1530.

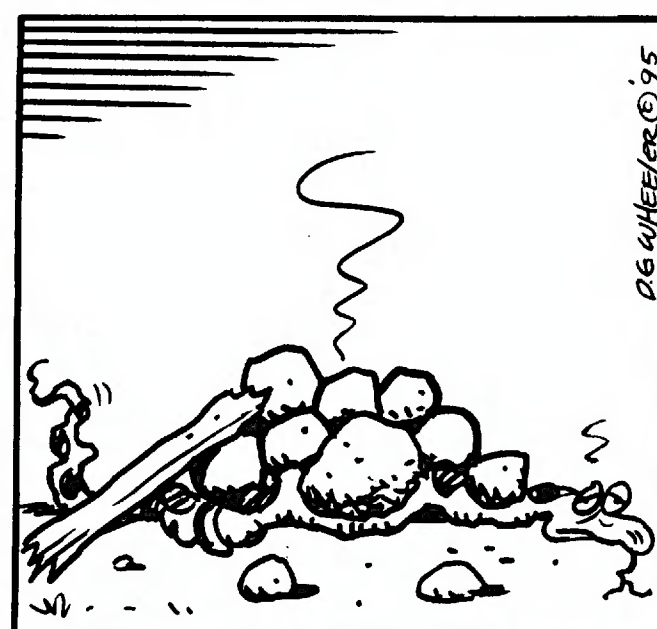
NEW MAILING ADDRESS — EXCHANGE PUBLICATIONS AND OTHERS PLEASE NOTE

Exchange newsletters and all other correspondence should no longer be sent to the old CHS street address of 2001 N. Clark Street. Please change your records to reflect our new correct address: **Chicago Herpetological Society, 2060 N. Clark Street, Chicago IL 60614-4799.**

AN ADDITION TO THE CHS HERPETOLOGICAL GRANTS PROGRAM

In addition to CHS funding, supplementary funding for the grants program in 1996 has been provided by Mardel Laboratories of Glendale Heights, Illinois. As a result of Mardel's generous donation, the CHS has established the Mardel Laboratories Grant in Herpetoculture. This \$500 grant will be awarded exclusively in the area of herpetoculture. See the announcement in last month's *Bulletin* for how to apply and for other categories in which grants are available. Or write for information to: Anthony J. Rattin, CHS Grants Committee Chairman, Department 46R, Building AP9, Pharmaceutical Products Division, Abbott Laboratories, 100 Abbott Park Road, Abbott Park, IL 60064-3500.

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